

both the sexes for territory marking. It is also believed that this action may perhaps sharpen the claws by peeling off any thin, loose or desquamated strips of laminae from the surface that are ready to flake off, either on the top of the claw or along the sides and thickened margins (Wyne-Edwards 1962). Probably this action also strengthens the claws and its muscles which are important to the predator for holding and tearing the prey. Schaller (1967) did not

notice this phenomenon during his study (1964-66). Nevertheless clawing on trees is regularly discernible and appears to play an important role in territorial advertisement amongst tigers.

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P.C. KOTWAL<sup>1</sup>

G.P. MISHRA<sup>2</sup>

<sup>1</sup> Research Officer, Kanha Tiger Reserve, M.P.

<sup>2</sup> Professor of Botany, Sagar University, M.P.

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## 2. AGGRESSIVE BEHAVIOUR OF A THIRSTY LEOPARD, *PANTHERA PARDUS* (LINN.)

There is a small spring called Kooda-ka-Joira situated high up in the hills about 20 km north-west of Udaipur. In fifties, the jungles around this spring were teeming with Four horned antelope (*Tetracerus quadricornis*), sambar (*Cervus unicolor*) and wild pigs (*Sus scrofa*). All these wild ungulates have been poached. Carnivores of the region (e.g. leopard and wolf *Canis lupus*)-chiefly depend upon live stock.

On 21st April, 1991 late in the evening our family went to the spring for an outing. Leaving the jeep about 200 m from the spring we walked down the remaining part and settled on an open patch near the water.

As darkness approached, we lit a carbide lamp and were enjoying the silence of the night. Suddenly we heard the low growl of a leopard from undergrowth 20 m from us. My father, who has many years of experience in the jungle, was worried and asked us to vacate the place immediately. But we were reluctant to do this and specially as the children were keen to see the leopard. Soon we found that the growling increased in intensity and the leopard started circling us and my father said that it is very

dangerous now and we should quickly leave the place.

We hastily packed up our belongings and meanwhile the growl changed into a loud cough. For illumination we had only two pencil torches and a carbide lamp. As we prepared to depart, my elder brother took three or four steps away from us to pick up the lamp. At the same moment, with an ear-splitting cough the leopard broke cover and charged towards my brother. We all including my brother remained where we were. The leopard stopped about 13 feet from my brother, hissing, growling and lashing its tail. How long this state remained I can't say but probably less than a minute. The leopard slowly turned its head, leaped into a bush and disappeared from our sight. My brother quickly picked up the lamp and we retreated hastily towards the jeep.

My father explained that the leopard was very thirsty and was in dire need of water. The other source of water was about 3 km away. Because we were close to the spring, it warned us by growls to leave the place and when we were reluctant to do so, the leopard desperately charged towards us. Next day

morning we found that the leopard had drunk from the pool.

The incident explains how such encounters could become dangerous.

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RAZA TEHSIN

41, Panchwati, Udaipur 313 001,

Rajasthan.

### 3. CANNIBALISM IN SOUTH INDIAN PALM SQUIRREL *FUNAMBULUS PALMARUM* (LINN.)

#### INTRODUCTION

Rodents, namely rat and squirrels are the most important vertebrate pests that can cause enormous losses to food grains in the field and in storage. They are serious pests of coconut in almost all 76 coconut growing countries in the world including India and its islands. Though they are pests of cultivated crops and stored products, cannibalistic behaviour has been reported among them. Petter (1968) noted cannibalism in rats and mice. Cannibalism has been recorded in five striped squirrel, *Funambulus pennanti* Wroughton (Gupta and Agrawal 1968), captive Indian Gerbil, *Tatera indica indica* Hardwicke (Purohit 1977) and western ghats squirrel, *Funambulus tristriatus* Waterhouse (Bhat 1980). The factors inducing cannibalism in house rat, *Rattus rattus rufescens* Gray was studied by Purohit and Bohra (1973). During an *in vitro* investigation cannibalism was observed in south Indian palm squirrel, *Funambulus palmarum* Linn. at Coconut Research Station, Veppankulam in 1992. As cannibalism has not been reported in south Indian palm squirrel, a separate study was undertaken for confirming cannibalism in this species.

#### MATERIALS AND METHODS

Adult squirrels of *F. palmarum* trapped alive in the coconut plantations were used for the study. The sexes were separated. Two males were put in a netted iron cage (60 x 45 x 30 cm). This was replicated

three times. Likewise two females constituting another pair were allowed in a similar cage and this was also replicated three times. In total six pairs, namely 3 pairs consisting 2 males each and another 3 pairs consisting 2 females each were individually maintained in separate iron cages. These were provided with coconut kernel and bananas.

#### RESULTS AND DISCUSSIONS

Among the six pairs, cannibalism was observed in all the three male pairs within 24 hrs of putting them in the cage. Cannibalism started during night. The head was eaten completely overnight. This was not observed in the females during the experimental period of 14 days. The presence of cannibalism is in conformity with the findings in captive desert gerbil, *Meriones hurrianae* Jerdon (Prakash and Kumbakarni 1962), five striped squirrel, *F. pennanti* (Agrawal 1965; Gupta and Agrawal 1968), Arctic squirrel, *Spermophilus parryii* (Holms 1977) and western ghat squirrel *F. tristriatus* (Bhat 1980).

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S. SADAKATHULLA<sup>1</sup>

A. ABDUL KAREEM<sup>2</sup>

<sup>1</sup>Agricultural College & Research Institute,  
Tiruchirappalli, 620 009,

Tamil Nadu.

<sup>2</sup>Centre for Plant Protection Studies,  
Tamil Nadu Agricultural University,

Coimbatore 641 003.

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